## 3-month summary

- The chance of a hot period is higher than normal albeit similar to recent years
- This brings an increased risk of heatwaves and heat-related impacts
- Near average rainfall most likely for the UK but with a slightly higher-than-normal chance of wet

## 3-month likelihood of impact

### Temperature

| 5% | 50% | 45% |
|---|---|---|
| chance the season will be **COOL** | chance the season will be **NEAR AVERAGE** | chance the season will be **HOT** |
| **0.3×** the normal chance | **0.8×** the normal chance | **2.3×** the normal chance |

### Precipitation

| 20% | 50% | 30% |
|---|---|---|
| chance the season will be **DRY** | chance the season will be **NEAR AVERAGE** | chance the season will be **WET** |
| **1.0×** the normal chance | **0.8×** the normal chance | **1.5×** the normal chance |

### Wind speed

| 20% | 60% | 20% |
|---|---|---|
| chance the season will be **CALM** | chance the season will be **NEAR AVERAGE** | chance the season will be **WINDY** |
| **1.0×** the normal chance | **1.0×** the normal chance | **1.0×** the normal chance |

## 1-month summary

- The chance of a warm May is higher-than-normal
- Rainfall is most likely to be near average

## 1-month likelihood of impact

### Temperature

| 10% chance the month will be COOL | 55% chance the month will be NEAR AVERAGE | 35% chance the month will be WARM |
|---|---|---|
| 0.5× the normal chance | 0.9× the normal chance | 1.8× the normal chance |

### Precipitation

| 15% chance the month will be DRY | 60% chance the month will be NEAR AVERAGE | 25% chance the month will be WET |
|---|---|---|
| 0.8× the normal chance | 1.0× the normal chance | 1.3× the normal chance |

### Wind speed

| 20% chance the month will be CALM | 60% chance the month will be NEAR AVERAGE | 20% chance the month will be WINDY |
|---|---|---|
| 1.0× the normal chance | 1.0× the normal chance | 1.0× the normal chance |

# Understanding the Outlook

The Outlook uses 3 categories for possible UK temperature, precipitation and wind speed in the next 1 and 3 months:

COOL, NEAR AVERAGE and WARM for 1-month temperature
COOL, NEAR AVERAGE and HOT for 3-month temperature
WET, NEAR AVERAGE and DRY for precipitation
CALM, NEAR AVERAGE and WINDY for wind speed

These are linked to observed UK conditions in past years. The NEAR AVERAGE category represents typical conditions for the period and has a normal likelihood of 60%. The higher and lower categories represent more unusual conditions that are more likely to produce impacts. Each has a normal likelihood of 20%.

The Outlook shows how the chances of occurrence of the categories differ from normal, based on knowledge of expected global meteorological patterns. It does not identify which category will actually occur.

## Same 3-month period over the last 10 years

| 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|---|---|---|---|
| COOL | NEAR AVERAGE | HOT | HOT | NEAR AVERAGE | NEAR AVERAGE | NEAR AVERAGE | HOT | HOT | NEAR AVERAGE |
| WET | NEAR AVERAGE | WET | DRY | NEAR AVERAGE | NEAR AVERAGE | NEAR AVERAGE | NEAR AVERAGE | NEAR AVERAGE | NEAR AVERAGE |
| WINDY | NEAR AVERAGE | NEAR AVERAGE | CALM | CALM | NEAR AVERAGE | CALM | NEAR AVERAGE | NEAR AVERAGE | CALM |

## Same 1-month period over the last 10 years

| 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|---|---|---|---|
| COOL | NEAR AVERAGE | WARM | WARM | NEAR AVERAGE | NEAR AVERAGE | COOL | WARM | WARM | WARM |
| WET | NEAR AVERAGE | NEAR AVERAGE | NEAR AVERAGE | NEAR AVERAGE | DRY | WET | NEAR AVERAGE | DRY | NEAR AVERAGE |
| WINDY | NEAR AVERAGE | NEAR AVERAGE | CALM | CALM | NEAR AVERAGE | NEAR AVERAGE | NEAR AVERAGE | CALM | CALM |

# Outlook in context

Drivers of UK weather for May to July

Global weather patterns can affect UK weather during the coming season and their influence acts to shift the chances of the categories in the Outlook. The influence of many of these drivers on UK weather patterns tends to be small at this time of year.
Drivers relevant to the current Outlook are:

• The warming of UK climate consistent with wider global warming trends
• ENSO (El Niño-Southern Oscillation) is neutral reducing its influence on global weather patterns

Long-range weather predictions

The Met Office and other prediction centres around the world routinely produce long-range forecasts of conditions in the months ahead. As is typical for forecasts made at this time of year, signals for prevailing weather patterns over the UK are relatively weak. During May, there are likely to be periods when both low and high pressure are dominant but no meaningful indicator as to which will be more frequent. For May to July, signals for prevailing weather patterns are both weak and mixed. The increased likelihood of the period being hot is largely being driven by the background warming of the UK climate.

Impacts

Consistent with our warming climate, there is an increase in the likelihood of hotter than normal conditions. Signals for this period are fairly similar to those seen in recent years. This doesn't necessarily mean that the UK will see heatwaves and heat-related impacts but the risk of these is higher than normal.

Rainfall signals are limited with large variations possible across the UK. During unsettled spells, some regions are likely to see heavy downpours and thunderstorms which bring a risk of instances of surface water flooding.

# Outlook compared to normal likelihood

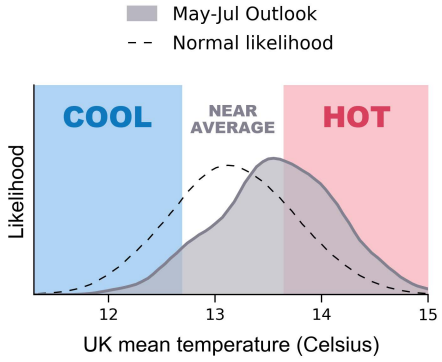
The curves below show the likelihood of the 1- and 3-month average temperature, precipitation and wind speed taking specific values. In each case:

- The dashed curve shows the normal likelihood based on how often each value has been recorded in past years
- The solid curve shows the current likelihood based on the Outlook for this year

The differences in these curves show how the probabilities for the coming periods differ compared to past years. Where the solid curve (corresponding to this year's Outlook) lies above the dashed curve (normal likelihood), the temperature, precipitation or wind speed at that point has a greater-than-normal likelihood of occurring. Likewise, wherever it is below the dashed curve, the likelihood of those values is less than normal.

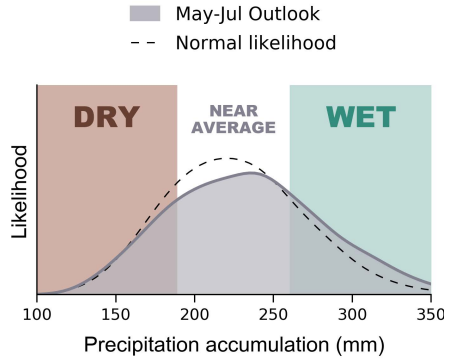
A shift of the solid curve to the left of the dashed curve indicates an increase in the chances of below-average temperature, rainfall or winds. A shift to the right, meanwhile, indicates increased chances of above-average values.

## 3-month temperature Outlook compared to normal



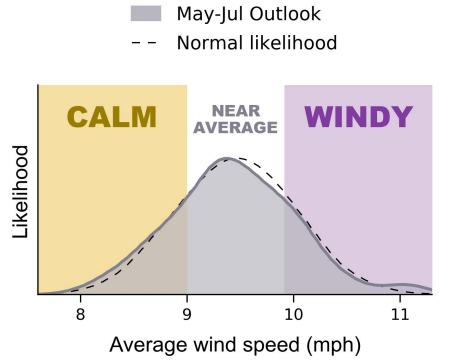

Likelihood leans towards hot

## 3-month precipitation Outlook compared to normal



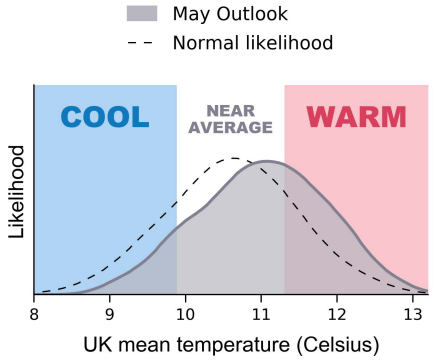

Likelihood leans slightly towards wet

## 3-month wind speed Outlook compared to normal



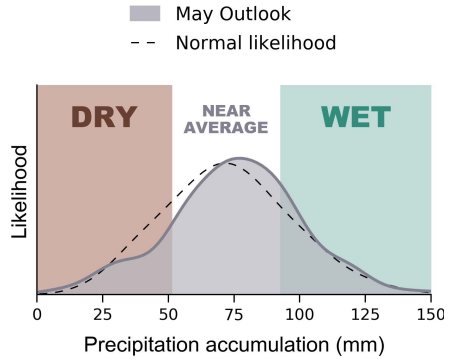

Balanced likelihood of calm and windy

## 1-month temperature Outlook compared to normal



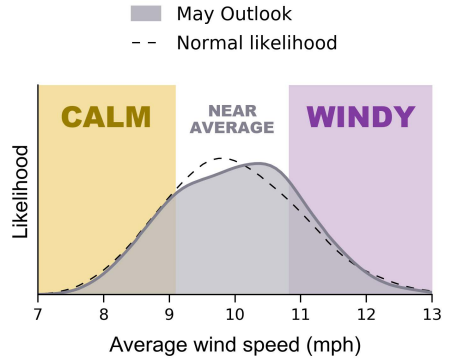

Likelihood leans towards warm

## 1-month precipitation Outlook compared to normal




Fairly balanced likelihood of dry and wet

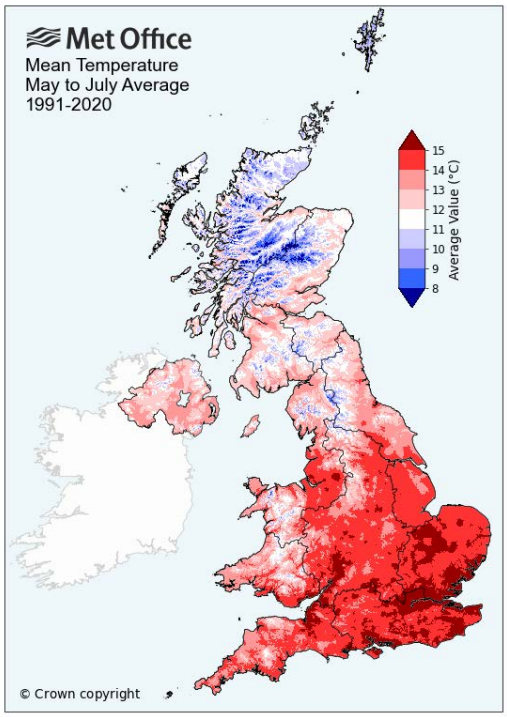
## 1-month wind speed Outlook compared to normal




Balanced likelihood of calm and windy

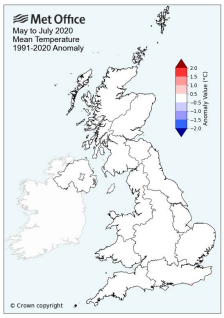
# Long-term average temperatures (3-month)

This page shows the long-term average temperatures across the UK applicable to the 3-month Outlook period.

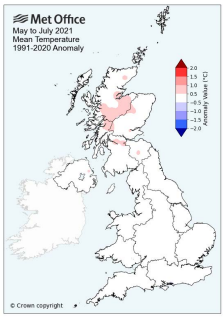



Average temperatures for May - July based on observations of past years.

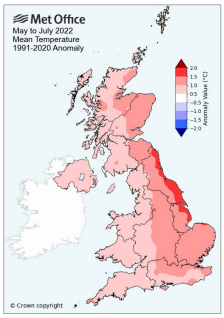
# Last 5 years temperatures, difference from average (3-month)



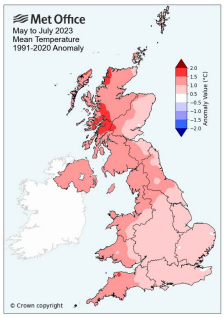

May - July 2020



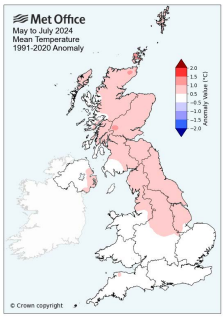

May - July 2021




May - July 2022




May - July 2023




May - July 2024

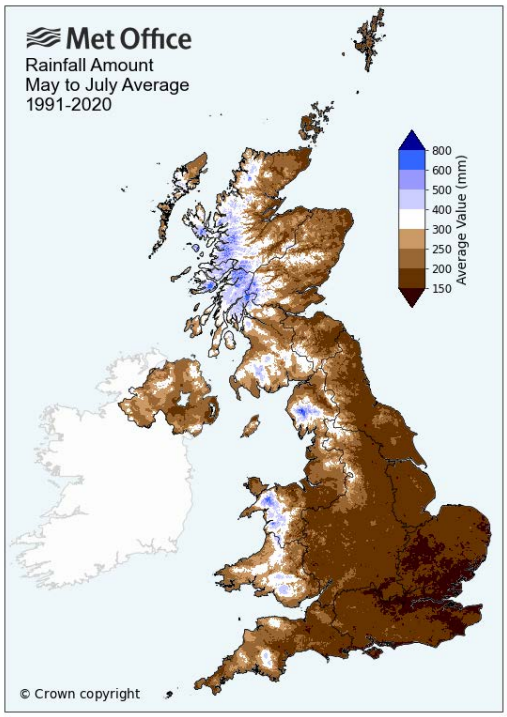
Anomaly (°C)

| < -2.0 | -2.0 to -1.5 | -1.5 to -1.0 | -1.0 to-0.5 | -0.5 to 0.5 | 0.5 to 1.0 | 1.0 to 1.5 | 1.5 to 2.0 | > 2.0 |
|---|---|---|---|---|---|---|---|---|

These maps show how May - July temperatures in the last five years differed from the long-term average temperatures shown above in the upper panel. Pink and red colours indicate warmer-than-average conditions while blue shades indicate cooler-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

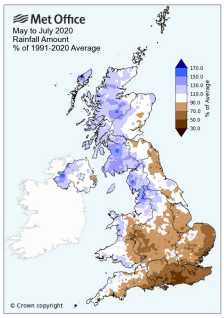
## Long-term average precipitation (3-month)

This page shows the long-term average precipitation across the UK applicable to the 3-month Outlook period.

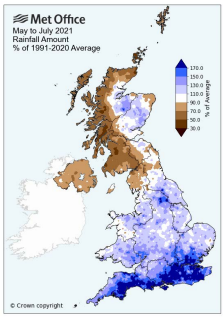



Average precipitation for May - July based on observations of past years.

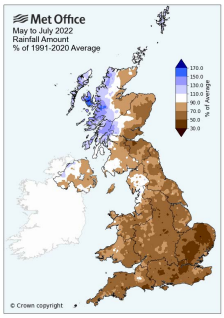
## Last 5 years precipitation, difference from average (3-month)



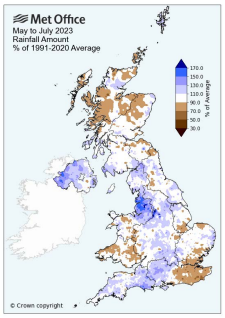

May - July 2020



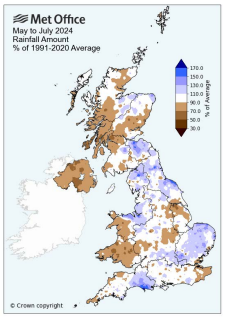

May - July 2021



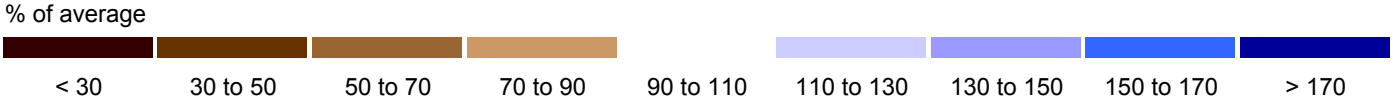

May - July 2022




May - July 2023



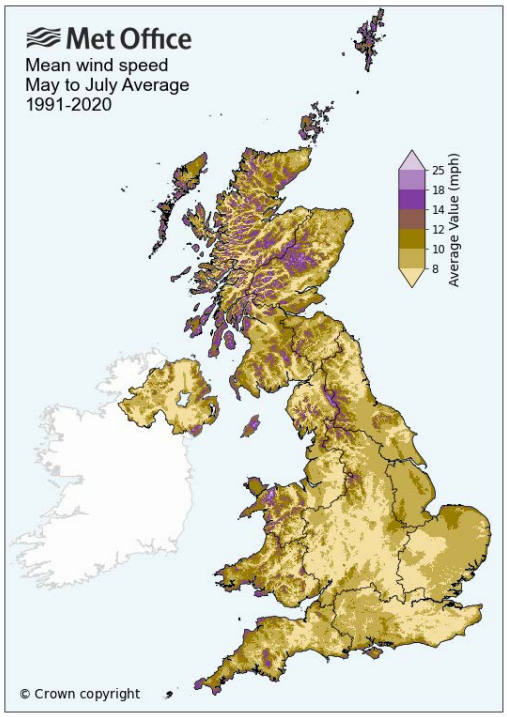

May - July 2024




These maps show how May - July precipitation in the last five years differed from the long-term average precipitation shown above in the upper panel. Brown colours indicate drier-than-average conditions while blue shades indicate wetter-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

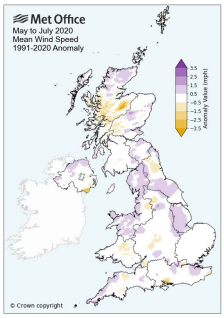
# Long-term average wind speed (3-month)

This page shows the long-term average wind speed across the UK applicable to the 3-month Outlook period.

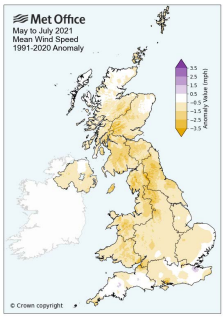



Average wind speed for May - July based on observations of past years.

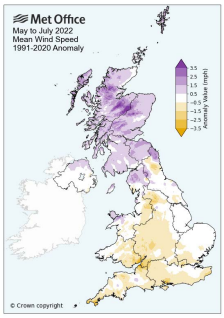
# Last 5 years wind speed, difference from average (3-month)



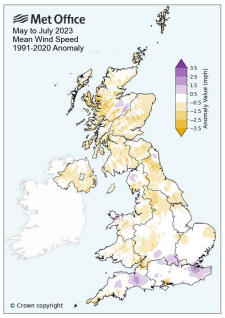

May - July 2020



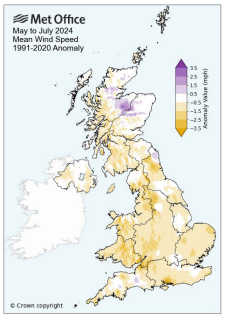

May - July 2021




May - July 2022




May - July 2023




May - July 2024

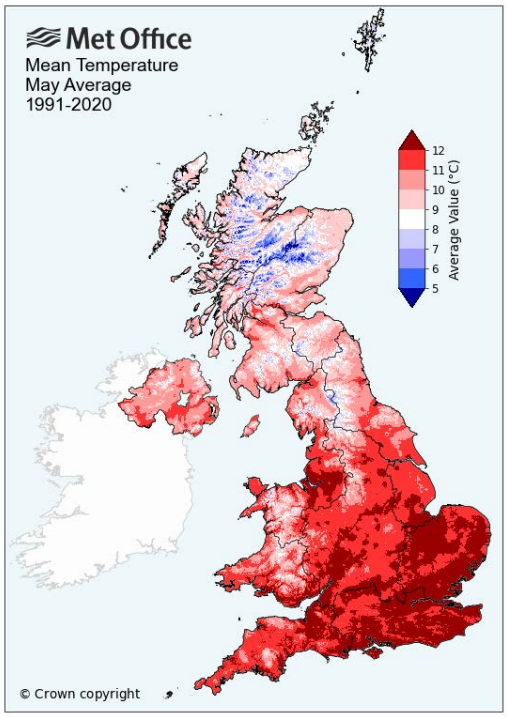
Anomaly (mph)

| < -3.5 | -3.5 to -2.5 | -2.5 to -1.5 | -1.5 to -0.5 | -0.5 to 0.5 | 0.5 to 1.5 | 1.5 to 2.5 | 2.5 to 3.5 | > 3.5 |
|---|---|---|---|---|---|---|---|---|

These maps show how May - July wind speed in the last five years differed from the long-term average wind speeds shown above in the upper panel. Yellow colours indicate calmer-than-average conditions while purple shades indicate windier-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

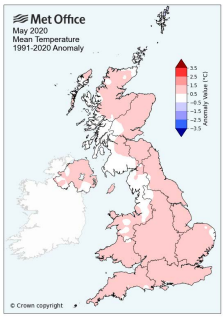
## Long-term average temperatures (1-month)

This page shows the long-term average temperatures across the UK applicable to the 1-month Outlook period.

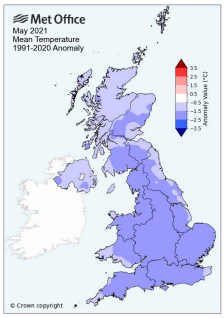



Average temperatures for May based on observations of past years.

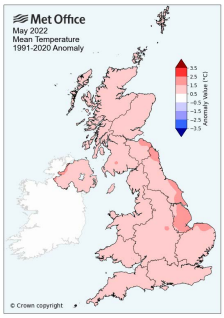
## Last 5 years temperatures, difference from average (1-month)



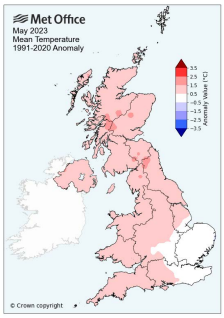

May 2020



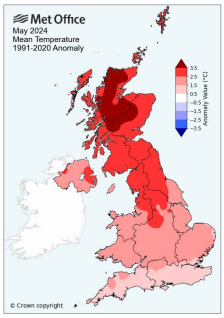

May 2021




May 2022




May 2023




May 2024

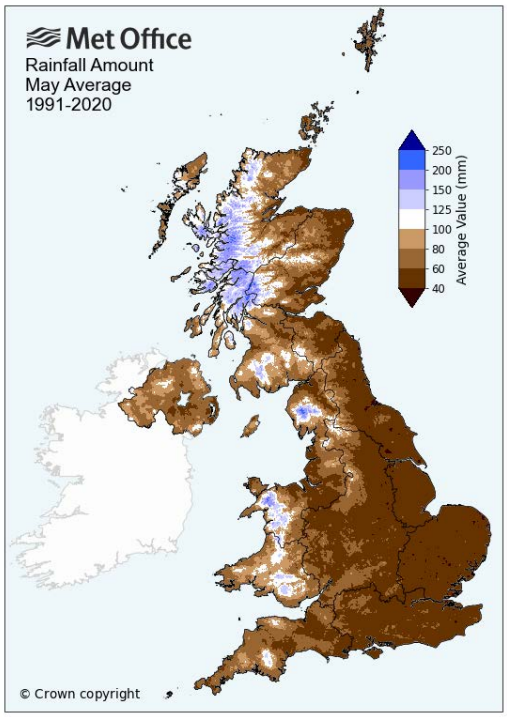
Anomaly (°C)

| < -3.5 | -3.5 to -2.5 | -2.5 to -1.5 | -1.5 to -0.5 | -0.5 to 0.5 | 0.5 to 1.5 | 1.5 to 2.5 | 2.5 to 3.5 | > 3.5 |
|---|---|---|---|---|---|---|---|---|

These maps show how May temperatures in the last five years differed from the long-term average temperatures shown above in the upper panel. Pink and red colours indicate warmer-than-average conditions while blue shades indicate cooler-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

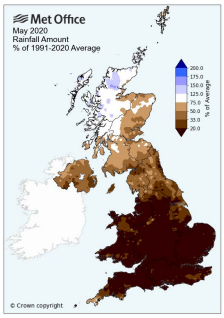
## Long-term average precipitation (1-month)

This page shows the long-term average precipitation across the UK applicable to the 1-month Outlook period.

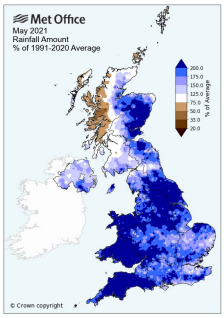



Average precipitation for May based on observations of past years.

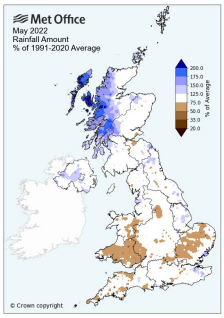
## Last 5 years precipitation, difference from average (1-month)



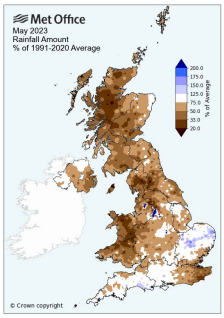

May 2020



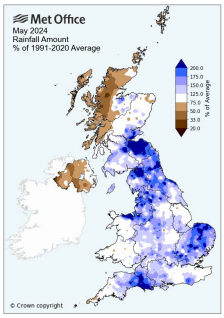

May 2021




May 2022




May 2023




May 2024

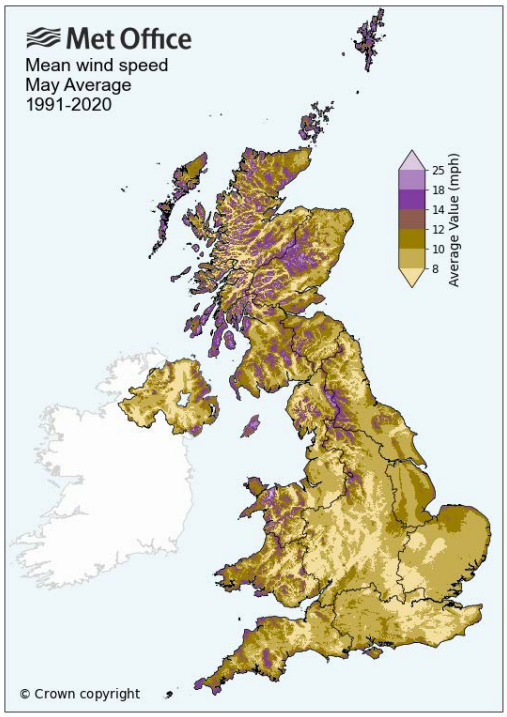
% of average

| < 20 | 20 to 33 | 33 to 50 | 50 to 75 | 75 to 125 | 125 to 150 | 150 to 175 | 175 to 200 | > 200 |
|---|---|---|---|---|---|---|---|---|

These maps show how May precipitation in the last five years differed from the long-term average precipitation shown above in the upper panel. Brown colours indicate drier-than-average conditions while blue shades indicate wetter-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

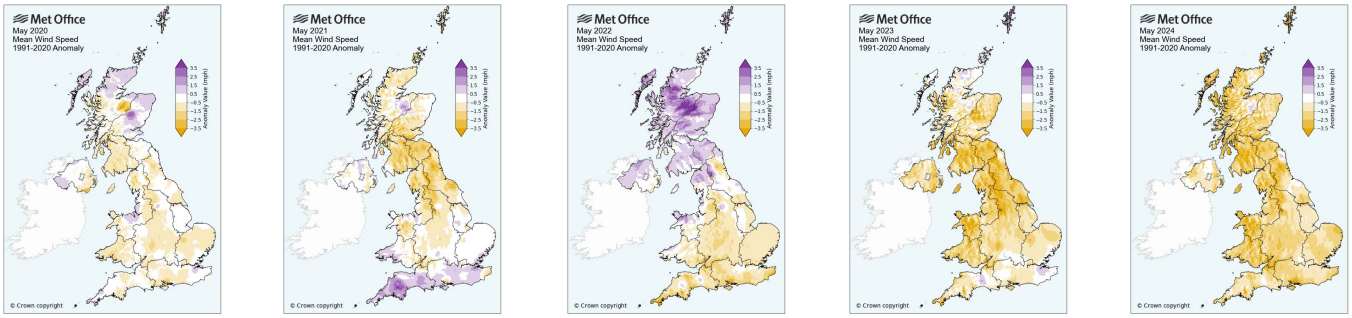
## Long-term average wind speed (1-month)

This page shows the long-term average wind speed across the UK applicable to the 1-month Outlook period.




Average wind speed for May based on observations of past years.

## Last 5 years wind speed, difference from average (1-month)




Anomaly (mph)

| < -3.5 | -3.5 to -2.5 | -2.5 to -1.5 | -1.5 to -0.5 | -0.5 to 0.5 | 0.5 to 1.5 | 1.5 to 2.5 | 2.5 to 3.5 | > 3.5 |
|---|---|---|---|---|---|---|---|---|

These maps show how May wind speed in the last five years differed from the long-term average wind speeds shown above in the upper panel. Yellow colours indicate calmer-than-average conditions while purple shades indicate windier-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

# Q&As

Q. What is the point of the Outlook, who is it meant for?
A. This Outlook is produced for planners in government and business who make risk-based decisions. These users are aware of the complexities of this type of outlook and will include those factors in their decision-making process.

Q. How did you decide on the Outlook? What are the main factors affecting it?
A. It is based on information from observations, several numerical prediction systems and expert judgement. See the 'Outlook in Context' section of the Outlook for more details.

Q. Is the Outlook for the whole country?
A. The Outlook is for the average of conditions over the UK as a whole. Regional deviations from the UK-average can occur. For example, average UK precipitation can result from below-average rainfall for the northwest and above-average for the southeast.

Q. How confident are you in this Outlook?
A. The percentages in the 'Likelihood of Impact' sections of the Outlook give the level of confidence.

Q. Does the increased chance of hotter than average conditions mean we could see heatwave conditions?
A. The increased chance of hotter than average conditions means that we may see more hot days and warm nights than usual. Consequently, there is a risk that heatwave conditions could be met at times, inevitably interspersed by some much cooler periods.

Q. Why does the May outlook show the chance of 'warm' conditions, but the 3-month outlook shows the chance of 'hot' conditions?
A. The phraseology used depends on the season the outlook is for. Climatologically warm conditions in spring are referred to as 'warm' and in the summer they are referred to as 'hot'. The use of these words in the outlook does not mean a particularly hot spell is expected this summer, the word 'hot' is used in the temperature section of every summer three-month outlook.

Q. Does the risk of thundery downpours increase the risk of flooding?
A. The chance of a wet or dry 3-month period is fairly balanced with only a modest increase in the chances of wet. However, some spells of unsettled weather are to be expected with heavy downpours and thunderstorms for some regions, as is typical for the time of year. This could increase the risk of localised impacts and higher than average rainfall totals in areas affected, with other areas remaining dry. Rainfall totals are likely to vary considerably in these situations. Questions about potential impacts from heavy rainfall such as flooding in your area should be referred to the Environment Agency, SEPA, Natural Resources Wales or NI Direct websites.

## About the Outlook

The Outlook presented here is for United Kingdom as a whole and is based on information from observations, several numerical prediction systems and expert judgement. It is updated monthly to reflect the latest information on global weather patterns and their effect on the UK. The Outlook is designed to be used in conjunction with shorter-range forecasts – detailed weather forecast information is available on the Met Office website.

In this product, temperature refers to the average of daytime maxima and night-time minima. Wind speed refers to the average wind speed at a height of 10 metres. All numerical values relate to averages (temperature, wind speed) or totals (precipitation – rain, sleet, snow and hail) over 1 or 3 months, which are further averaged over the UK land area as a whole. Normal likelihood and long-term averages are established using the period 1991-2020.

## Find out more

- UK 3-month Outlook user guidance page:
  https://www.metoffice.gov.uk/services/government/contingency-planners/user-guidance/user-guidance
- Explainers on climate drivers (such as the El Niño Southern Oscillation and North Atlantic Oscillation) that influence seasonal forecasts and the impacts they can have on UK weather:
  https://www.metoffice.gov.uk/services/government/contingency-planners/seasonal-forecasts-and-climate-drivers-resources
- Contingency planners page:
  https://www.metoffice.gov.uk/services/government/contingency-planners/index

## Contact us

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enquiries@metoffice.gov.uk

## Provide your feedback

We would like to hear your feedback on the UK 3-month Outlook to understand how it is being used. Please fill in the short form using this link or QR code to share your thoughts.